

**U. S. PLANT PATENT APPLICATION OF**

**WENDY R. BERGMAN**

**FOR: CHRYSANTHEMUM PLANT NAMED**

**‘SAINTLOUIS’**

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TITLE: CHRYSANTHEMUM PLANT NAMED ‘SAINTLOUIS’

APPLICANT: WENDY R. BERGMAN

BOTANICAL CLASSIFICATION/CULTIVAR DESIGNATION:

*Chrysanthemum X morifolium* cultivar Saintlouis

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## BACKGROUND OF THE INVENTION

The present Invention relates to a new and distinct cultivar of Chrysanthemum plant, botanically known as *Chrysanthemum X morifolium* and hereinafter referred to by the name ‘Saintlouis’.

The new Chrysanthemum is a product of a planned breeding program conducted by the Inventor in Salinas, California and Fort Myers, Florida. The objective of the breeding program is to create new potted Chrysanthemum cultivars that are suitable for year-round production with uniform plant growth habit, good vigor and strong branching habit, numerous inflorescences, desirable inflorescence form and floret colors, fast and uniform flowering response, and good postproduction longevity.

The new Chrysanthemum originated from a cross-pollination made by the Inventor in June, 1998, in Salinas, California, of a proprietary Chrysanthemum seedling selection identified as code number YB-5539, not patented, as the female, or seed, parent with a proprietary Chrysanthemum seedling selection identified as code number YB-4690, not patented, as the male, or pollen, parent. The new Chrysanthemum

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was discovered and selected by the Inventor as a single flowering plant  
within the progeny of the stated cross-pollination grown in a controlled  
environment in Fort Myers, Florida. The selection of this plant was based  
on its uniform plant growth habit, good vigor and strong branching habit,  
5 numerous inflorescences, desirable inflorescence form and floret colors,  
fast and uniform flowering response, and good postproduction longevity.

Asexual reproduction of the new Chrysanthemum by vegetative tip  
cuttings was first conducted in Fort Myers, Florida in March, 1999.  
Asexual reproduction by cuttings has shown that the unique features of  
10 this new Chrysanthemum are stable and reproduced true to type in  
successive generations.

#### SUMMARY OF THE INVENTION

The cultivar Saintlouis has not been observed under all possible  
environmental conditions. The phenotype may vary somewhat with  
15 variations in environment such as temperature, daylength, and/or light  
level, without, however, any variance in genotype.

The following traits have been repeatedly observed and are  
determined to be the unique characteristics of 'Saintlouis'. These  
characteristics in combination distinguish 'Saintlouis' as a new and  
20 distinct Chrysanthemum:

1. Uniform and outwardly spreading plant habit.

2. Strong and freely branching growth habit.
3. Dark green-colored foliage.
4. Uniform flowering response and habit.
5. Early flowering, eight-week response time.
6. Daisy-type inflorescences.
7. Red purple and white bi-colored ray florets.
8. Good postproduction longevity with plants maintaining good substance and color for about three weeks in an interior environment.

10 Plants of the new Chrysanthemum differ primarily from plants of the parent selections primarily in ray floret coloration as plants of the female parent selection have pink and white bi-colored ray florets and plants of the male parent selection have white-colored ray florets.

15 Plants of the new Chrysanthemum can be compared to plants of the cultivar Tijuana, disclosed in U.S. Plant Patent number 9,083. In side-by-side comparisons conducted in Fort Myers, Florida, plants of the new Chrysanthemum differed from plants of the cultivar Tijuana in the following characteristics:

1. Plants of the new Chrysanthemum were more shorter than plants of the cultivar Tijuana.

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2. Plants of the new Chrysanthemum were more outwardly spreading than plants of the cultivar Tijuana.
3. Ray floret color of plants of the new Chrysanthemum was more intense than ray floret color of plants of the cultivar Tijuana.
4. Plants of the new Chrysanthemum did not produce pollen whereas plants of the cultivar Tijuana produced large amounts of pollen.

#### BRIEF DESCRIPTION OF THE PHOTOGRAPHS

The accompanying colored photographs illustrate the overall appearance of the new Chrysanthemum showing the colors as true as it is reasonably possible to obtain in colored reproductions of this type. Colors in the photographs may differ from the color values cited in the detailed botanical description which accurately describe the colors of the new Chrysanthemum. The photograph on the first sheet comprises a side perspective view of typical flowering plants of 'Saintlouis'. The photograph on the second sheet comprises a close-up view of typical inflorescences of 'Saintlouis'.

#### DETAILED BOTANICAL DESCRIPTION

In the following description, color references are made to the Royal Horticultural Society Colour Chart, 1995 Edition, except where general

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terms of ordinary dictionary significance are used. The aforementioned photographs, following observations and measurements describe plants grown and flowered during the spring in Salinas, California, in a fiberglass-covered greenhouse and under conditions which approximate those generally used in commercial potted Chrysanthemum production.  
5 During the production of these plants, the following conditions were measured: day temperatures, 21 to 27°C; night temperatures, 17 to 19°C; and light levels, 5,000 to 6,000 foot-candles. Four unrooted cuttings were directly stuck in 15-cm containers, exposed to long day/short night conditions, and pinched once about 14 days later. At the time of the pinch, the photoinductive short day/long night treatments were initiated.  
10 Plants used for the photographs and description were grown as spray-types. Measurements and numerical values represent averages of typical flowering plants.

15 BOTANICAL CLASSIFICATION:

*Chrysanthemum X morifolium* cultivar Saintlouis.

COMMERCIAL CLASSIFICATION:

Daisy-type potted Chrysanthemum.

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PARENTAGE:

Female, or seed, parent: Proprietary *Chrysanthemum* X *morifolium* seedling selection identified as code number YB-5539, not patented.

5 Male, or pollen, parent: Proprietary *Chrysanthemum* X *morifolium* seedling selection identified as code number YB-4690, not patented.

PROPAGATION:

Type: Terminal tip cuttings.

10 Time to initiate roots: About four days at 21°C.

Time to produce a rooted cutting: About ten days at 21°C.

Root description: White, close to 155D; fibrous.

Rooting habit: Freely branching.

PLANT DESCRIPTION:

15 Appearance: Herbaceous daisy-type potted Chrysanthemum that is typically grown as a spray-type. Uniform with lateral branches outwardly spreading; uniformly mounded crown. Strong and freely branching growth habit; about four lateral branches develop after removal of terminal apex (pinching); dense and full plants.

20 Plant height: About 27 cm.

Plant width: About 36 cm.

Lateral branches:

Length: About 22 cm.

Diameter: About 4 mm.

Internode length: About 1.6 cm.

5 Strength: Strong.

Texture: Pubescent.

Color: Close to 146A.

Foliage description:

Arrangement: Alternate; simple.

10 Length: About 6.9 cm.

Width: About 5.5 cm.

Apex: Mucronate.

Base: Truncate.

Margin: Palmately lobed, sinuses between lateral lobes

15 mostly convergent.

Texture, upper and lower surfaces: Pubescent.

Color:

Developing expanded foliage, upper surface: Darker  
than 147A.

20 Developing expanded foliage, lower surface: Darker  
than 147B.

Fully expanded foliage, upper surface: Slightly darker than 147A.

Fully expanded foliage, lower surface: 147B.

Venation, upper and lower surfaces: Close to 146B.

5 Petiole length: About 2.3 cm.

Petiole diameter: About 3.5 mm.

Petiole color, upper and lower surfaces: Close to 146B.

INFLORESCENCE DESCRIPTION:

10 Appearance: Daisy-type inflorescence form with elongated oblong-shaped ray florets. Inflorescences borne on terminals above foliage. Disk and ray florets develop acropetally on a capitulum. Inflorescences not fragrant. Plants are typically grown as spray-types.

15 Flowering response: Under natural conditions, plants flower in the autumn/winter in the Northern Hemisphere. At other times of the year, inflorescence initiation and development can be induced under short day/long night conditions (at least 13.5 hours of darkness). Early flowering; plants exposed to two weeks of long day/short night conditions followed by photoinductive short day/long night conditions flower about eight weeks later.

Postproduction longevity: Inflorescences maintain good color and substance for about three weeks in an interior environment.

Quantity of inflorescences: About five per lateral branch.

Inflorescence bud:

5                    Height: About 5 mm.

                      Diameter: About 1 cm.

                      Shape: Oblate.

                      Color: Close to 146A.

Inflorescence diameter: About 8.2 cm.

10                  Inflorescence depth (height): About 1.9 cm.

                      Diameter of disc: About 1.7 cm.

                      Receptacle diameter: About 8 mm.

Ray florets:

                      Shape: Elongated oblong.

15                  Orientation: Initially upright, then perpendicular to the peduncle.

                      Aspect: Mostly flat.

                      Length: About 4 cm.

                      Corolla tube length: About 4 mm.

20                  Width: About 1cm.

                      Apex: Acute.

Base: Fused into a corolla tube.

Margin: Entire.

Texture: Smooth, glabrous, satiny.

Number of ray florets per inflorescence: About 22 arranged  
5 in two whorls.

Color:

When opening and fully opened, upper surface:  
Towards apex, slightly darker than 71A; mid-section,  
slightly darker than 71A with white, 155D,  
10 longitudinal streaks; towards base, 155D with purple,  
slightly darker than 71A, longitudinal streaks.

When opening and fully opened, lower surface:  
Towards apex, 77A with a few white, 155D,  
longitudinal streaks; mid-section, 77A with white,  
155D, longitudinal streaks; towards base, 155D.  
15

Disc florets:

Arrangement: Massed at center of receptacle.

Shape: Tubular, elongated.

Apex: Five-pointed.

Length: About 6 mm.  
20

Diameter, apex: About 2 mm.

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Diameter, base: About 1 mm.

Number of disc florets per inflorescence: About 147.

Color:

    Immature: Close to 151A.

    5                   Mature:

        Apex: Close to 9A.

        Mid-section: Close to 154D.

        Base: Close to 155D.

Phyllaries:

    10                  Quantity per inflorescence: About 24.

        Length: About 8 mm.

        Width: About 2 mm.

        Shape: Deltoid.

        Apex: Acute.

    15                  Base: Truncate.

        Margin: Entire.

        Texture, upper surface: Waxy, smooth.

        Texture, lower surface: Pubescent.

        Color, upper surface: Closest to 146A.

    20                  Color, lower surface: Close to 146A to 146B.

Peduncles:

Length:

First peduncle: About 3.5 cm.

Fourth peduncle: About 5.5 cm.

5 Diameter: About 2 mm.

Angle to vertical: About 45° from vertical.

Strength: Strong, flexible.

Texture: Pubescent.

Color: Closest to 146A.

10 Reproductive organs:

Androecium: Present on disc florets only.

Anther color: Close to 9A.

Pollen amount: None observed.

Gynoecium: Present on both ray and disc florets.

15 Style color: Close to 144B to 144C.

Stigma color: Close to 9A.

Seed/fruit: Seed and fruit production has not been observed.

DISEASE/PEST RESISTANCE:

Resistance to pathogens and pests common to Chrysanthemums  
20 has not been observed on plants grown under commercial  
greenhouse conditions.